

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
Niagara Falls Boulevard Radiological Site - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region II

Subject: POLREP #11
Niagara Falls Boulevard Site Removal Action
Niagara Falls Boulevard Radiological Site
A23Q
Niagara Falls, NY
Latitude: 43.0965960 Longitude: -78.9520670

To: James Doyle, USEPA Region 02
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From: Eric Daly, On-Scene Coordinator

Date: 1/28/2017

Reporting Period: 12/17/2017 through 01/28/2017

1. Introduction

1.1 Background

Site Number:	A23Q	Contract Number:	
D.O. Number:		Action Memo Date:	9/27/2016
Response Authority:	CERCLA	Response Type:	Time-Critical
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	6/1/2016	Start Date:	6/1/2016
Demob Date:		Completion Date:	
CERCLIS ID:	NYN000206699	RCRIS ID:	
ERNS No.:		State Notification:	
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

Removal Assessment and Removal Action

1.1.2 Site Description

The 9540 Niagara Falls Boulevard site (CERCLIS ID NYN000206699), hereinafter referred to as "the NFB site" or "the site", is located in a mixed commercial and residential area of Niagara Falls, New York. The site consists of two parcels, namely 9524 and 9540 Niagara Falls Boulevard. This site encompasses approximately 2.53 acres. Currently, the 9524 Niagara Falls Boulevard property contains a bowling alley and an asphalt parking lot; the 9540 Niagara Falls Boulevard property contains a vacant building and an asphalt parking lot. The properties are bordered to the north by a wooded area; to the east by a church; to the south by Niagara Falls Boulevard, beyond which is a residential area; and to the west by a hotel and residential area.

In 1978, the U.S. Department of Energy conducted an aerial radiological survey of the Niagara Falls region and found more than 15 properties having elevated levels of radiation above background levels. It is believed that, in the early 1960s, slag from the Union Carbide facility located on 47th Street in Niagara Falls was used as fill on the properties prior to paving. The Union Carbide facility processed ore containing naturally-occurring high levels of uranium and thorium to extract niobium. The slag contained sufficient quantities of uranium and thorium to be classified as a licensable radioactive source material. Union Carbide subsequently obtained a license from the Atomic Energy Commission, now the Nuclear Regulatory Commission, and the State of New York; however, the slag had been used as fill throughout the Niagara Falls region prior to licensing. Based on the original survey and subsequent investigations, it is believed that the radioactive Union Carbide slag was deposited on the NFB site.

1.1.2.1 Location

9524-9540 Niagara Falls Boulevard, Niagara Falls, NY

1.1.2.2 Description of Threat

Radioactive contamination

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

In September/October 2006 and May 2007, NYSDEC conducted radiological surveys of the interior and exterior of both properties on several occasions using both an Exploranium-135 and Ludlum 2221 detectors. With the exception of an office area and storage space at 9540 Niagara Falls Boulevard that was constructed after the original building directly on top of the asphalt parking lot, interior radiation levels were relatively low. The highest reading in the newer area was 115 $\mu\text{R/hr}$; elsewhere throughout the building, radiation levels generally ranged between 10 and 20 $\mu\text{R/hr}$. Exterior readings taken at waist height generally ranged between 10 and 350 $\mu\text{R/hr}$, while the maximum reading of 600 $\mu\text{R/hr}$ was recorded on contact (i.e., at the ground surface). At a fenced area behind the building located at 9540 Niagara Falls Boulevard, waist-high readings ranged between 200 and 450 $\mu\text{R/hr}$, and on-contact readings ranged between 450 and 750 $\mu\text{R/hr}$. Elevated readings were also observed on the swath of grass between the 9524 Niagara Falls Boulevard property and the adjacent property to the west that contains a hotel, and in the marshy area beyond the parking lot behind the buildings. Two biased samples of slag were collected from locations that exhibited elevated static Ludlum detector readings: one sample was collected from an area of loose blacktop that indicated readings of 515,905 cpm on the Ludlum detector, and one slag sample was collected in the marshy area that indicated readings of 728,235 cpm on the Ludlum detector.

During a reconnaissance performed by the NYSDOH and NYSDEC on July 9, 2013, screening activities showed radiation levels at 200 µR/hr with a hand-held PIC unit around an area of broken asphalt and 500 µR/hr from a soil pile containing slag at the NFB site. Readings over 600,000 cpm were recorded with a sodium iodide 2x2 scintillation detector from the soil and slag pile.

The Niagara Falls Boulevard Site (Site) was referred to the EPA by the NYSDEC and NYSDOH on July 21, 2013. No other removal actions have been taken by other government or private parties prior to this request.

On September 10, 2013, WESTON conducted a gamma radiation screening of the 9524 Niagara Falls Boulevard property using a Ludlum 2221 Scaler Ratemeter. On December 4–5, 2013, further radiological survey information was obtained from the 9524 and 9540 Niagara Falls Boulevard properties, as well as the church property located further east of the two site parcels. The highest gamma radiation screening results were recorded from the exposed soil area in the rear, northern portion of the 9540 Niagara Falls Boulevard property.

On December 5–7, 2013, WESTON documented the areas of observed contamination at the NFB site. The areas of observed contamination were delineated by measuring the gamma radiation exposure rates, and determining where the gamma radiation exposure rate around the source equals or exceeds two times the gamma radiation at site-specific background rates. The areas of observed contamination are defined by site-attributable gamma radiation exposure rates, as measured by a survey instrument held 1 meter above the ground surface, which equal or exceed two times the site-specific background gamma radiation exposure rate. At the NFB site, an area of approximately 168,832 ft² was found to have gamma radiation levels which exceed two times the background measurement of 8,391 cpm. PIC data were also collected at several points to confirm the boundary.

On December 11, 2013, WESTON collected a total of 16 soil samples (including one environmental duplicate sample) and three slag samples from fifteen boreholes advanced throughout the NFB site and the First Assembly Church property located directly adjacent to the east/northeast of the site property, using hollow-stem auger drilling methods. The two soil samples collected on the First Assembly Church property are to document background conditions. At each sample location, soil samples were collected directly beneath slag; at locations where slag was not present, the soil sample was collected at the equivalent depth interval.

The soil samples were analyzed for metals by inductively coupled plasma (ICP) technique and mercury by manual cold vapor technique in accordance with SW-846 Method 6010C and 7471B, respectively. In addition, soil and slag samples were analyzed for isotopic thorium and isotopic uranium by alpha spectrometry according to DOE method A-01-R, and radium-226 and radium-228 by gamma spectrometry according to DOE Method GA-01-R. Analytical results indicate concentrations of radionuclides found in the slag and soil to be significantly higher than at background conditions (i.e., greater than 2x background concentrations).

On April 28, 2014, EPA Contractor personnel collected radon and thoron concentration measurements from locations on and in the vicinity of the NFB site. At the selected locations in background areas, above the source material, and off the source area, radon and thoron concentration measurements in pCi/L were collected with RAD7 radon detectors. The radon and thoron measurements were collected at heights of one meter above the ground surface. The measurements included uncertainty values, which were taken into account to calculate adjusted concentrations for evaluation of observed release in the air migration pathway. There were no radon or thoron concentrations that exceeded the site-specific background, nor were there any adjusted concentrations that equaled or exceeded a value two standard deviations above the mean site-specific background concentration for that radionuclide in that type of sample (i.e., there is no evidence of an observed release to air from site sources).

Based on the Pre-Remedial Evaluation, the site did not meet the minimum criteria necessary to be placed on EPA's "National Priorities List", a list of hazardous waste sites in the U.S. which are eligible for long-term cleanup financed under the federal Superfund program. However, it was subsequently determined that material contaminated with radiation was located beneath the asphalt parking lot shared by the bowling alley and a building supply center. EPA determined that the Agency would further assess the site to determine if an action under EPA's short term, or "removal" program was warranted.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Niagara Falls Boulevard Site-OSC Daly/OSC Pellegrino

From December 17, 2016 through January 28, 2017 the following tasks/events occurred:

Starting on December 13, 2016, the excavated radioactive waste material from Niagara Falls Boulevard Site has been shipped to US Ecology in Michigan. Throughout the current time range, EPA, Weston and GES continued to manage and stage the material for transport off-site. This included blending the material as per Health Physicist Nguyen methodology in order to meet US Ecology acceptance criteria. All the material removed from the GNBC Office Area has been transported properly off-site. As of January 25, 2017, all material from Area 5 that was excavated and temporarily relocated to a secured non-containerized staging area on-site has been properly transported to US Ecology. The remaining material that was excavated from Area 5 has been stored in super sacks, labeled, weighed and stored inside secured Conex Containers on-site awaiting future disposal.

On January 09, 2017, \$435,000.00 was authorized in mitigation funding.

On January 10, 2017, HP Nguyen's blending proposal for GNBC Office Area Boxes and Medium Concentration was approved by US Ecology.

The City of Niagara Falls approved the blue print plans for the GNBC Office Area construction. The GES bid for construction contractor was sent out on January 11, 2017. The Pre-Bid Site Visit was conducted on January 17, 2017. The proposal responses were turned into GES close of business on January 26, 2017.

The trees that were removed from Area 5 during the excavation were labeled and staged. Those trees will now be gamma scanned and sampled prior to being removed off-site.

The High-Purity Germanium (HPGe) Detector continues to be utilized to analyze site soil samples in order to determine soil concentrations for operational planning.

2.1.2 Response Actions to Date

To date, approximately 107 tons of material has been removed from the GNBC Front Office Area and approximately 4,442.07? tons of material has been excavated from Area 5.

All of the material from the GNBC Office Area has been shipped off site to US Ecology in Michigan.

Approximately, 3,706.74 tons of material from Area 5 has been shipped off site to US Ecology in Michigan.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

PRPs are being investigated by USEPA Enforcement Team

2.1.4 Progress Metrics

Manifest #	Date Shipped	Quantity	Units	Waste Description	Waste Code	Method of Disposal	Disposal Facility
016689001	12/15/2016	18.98Tons		GNBC Office Area radioactive material	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689002	12/15/2016	19.22Tons		GNBC Office Area radioactive material	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689003	12/15/2016	18.34Tons		GNBC Office Area radioactive material	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689004	12/19/2016	23.93Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689005	12/19/2016	24.00Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689006	12/19/2016	24.16Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689007	12/19/2016	23.79Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689008	12/19/2016	24.36Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689009	12/19/2016	24.60Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689010	12/19/2016	22.18Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689011	12/19/2016	24.66Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689012	12/19/2016	23.82Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689013	12/19/2016	22.48Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689014	12/20/2016	24.21Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689015	12/20/2016	19.97Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689016	12/20/2016	22.73Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689017	12/20/2016	23.47Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689018	12/20/2016	24.78Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689019	12/20/2016	22.69Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689020	12/20/2016	23.53Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689021	12/20/2016	22.79Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689022	12/20/2016	21.72Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689023	12/20/2016	21.05Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689024	12/21/2016	20.53Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689025	12/21/2016	22.31Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689026	12/21/2016	23.95Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689027	12/21/2016	23.74Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689028	12/21/16	22.52Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689029	12/21/2016	22.32Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689030	12/21/2016	24.18Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689031	12/21/2016	22.84Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689032	12/21/2016	22.84Tons		Area 5 - Medium Concentration Pile	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan

[illegible]

[illegible]

[illegible]

016689159	1/24/2017	22.26Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689160	1/24/2017	23.19Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689161	1/24/2017	23.30Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689162	1/24/2017	22.68Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689163	1/25/2017	22.00Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689164	1/25/2017	22.00Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689165	1/25/2017	24.00Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689166	1/25/2017	22.00Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
16689167	1/25/2017	23.00Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
016689168	1/25/2017	22.00Tons	Area 5 - High/Low Concentration Blend	NORM/	Direct load into Dump Trailer to Landfill	US Ecology-Michigan
Total		3813.74Tons				

Highlighted weights are estimated

2.2 Planning Section

2.2.1 Anticipated Activities

Awarding of subcontractor construction bid.
Backfilling of GNBC Office Area and Area 5 with clean material.
Rebuild of GNBC Office Area once permits approved.
Interview with Reporter Dan Telvock.
Gamma scan and sampling of Area 5 Trees.
Gamma scan and sampling of small excavated section of Area 5.

2.2.1.1 Planned Response Activities

Rebuild of GNBC Office Area once permits approved.

2.2.1.2 Next Steps

Plan assessment of parking lot.

2.2.2 Issues

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

2.4.1 Narrative

On May 13, 2016, ERRD Director authorized verbal funding in the amount of \$500,000.00 in mitigation funding and \$100,000.00 in RST contractor funding for a total project ceiling of \$600,000.00 to initiate an emergency Comprehensive Environmental Response Compensation and Liability Act (CERCLA) removal action at the Niagara Falls Boulevard Site.

On July 14, 2016, the ERRD Deputy Director verbally authorized \$500,000 in mitigation funding for a total project ceiling of \$1,100,000.00 to continue the CERCLA removal action at the Niagara Falls Boulevard Site.

On September 28, 2016, the Niagara Falls Boulevard Site Action Memo was signed by USEPA Headquarters.

On September 29, 2016, \$950,000.00 was authorized in mitigation funding.

On October 22, 2016, OSC Daly transferred \$200,000.00 from extramural cost (Total \$707,000.00) to the RST2 costs. The new total budgeted ceiling for RST2 is \$518,000.00. Remaining extramural cost is \$505,000.00.

On January 09, \$435,000.00 was authorized in mitigation funding to bring the total mitigation ceiling to \$2,385,000.00

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$2,385,000.00	\$2,308,446.47	\$76,553.53	3.21%

TAT/START	\$518,000.00	\$425,113.68	\$92,886.32	17.93%
Intramural Costs				
Total Site Costs	\$2,903,000.00	\$2,733,560.15	\$169,439.85	5.84%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

GES Health and Safety Officer worked with HP Lyndsey Nguyen and OSC Daly to improve existing HASP and site activities.

2.5.2 Liaison Officer

2.5.3 Information Officer

Mike Basile is the lead USEPA Public Affairs Official. Mr. Basile distributed the NFB Site Fact sheet to local officials, neighboring businesses, schools and communities on May 31, 2016 and June 1, 2016.

3. Participating Entities

3.1 Unified Command

3.2 Cooperating Agencies

NYS DEC
NYS DOH
Niagara County DOH

4. Personnel On Site

OSC Daly
OSC Jimenez
OSC Pellegrino
EPA ERT Health Physicist Lyndsey Nguyen
EPA ERT Health Physicist Dave Kappelman
Weston: One Lead and One Technician
Guardian: RM, FCA, Two Operators and One Tech

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.